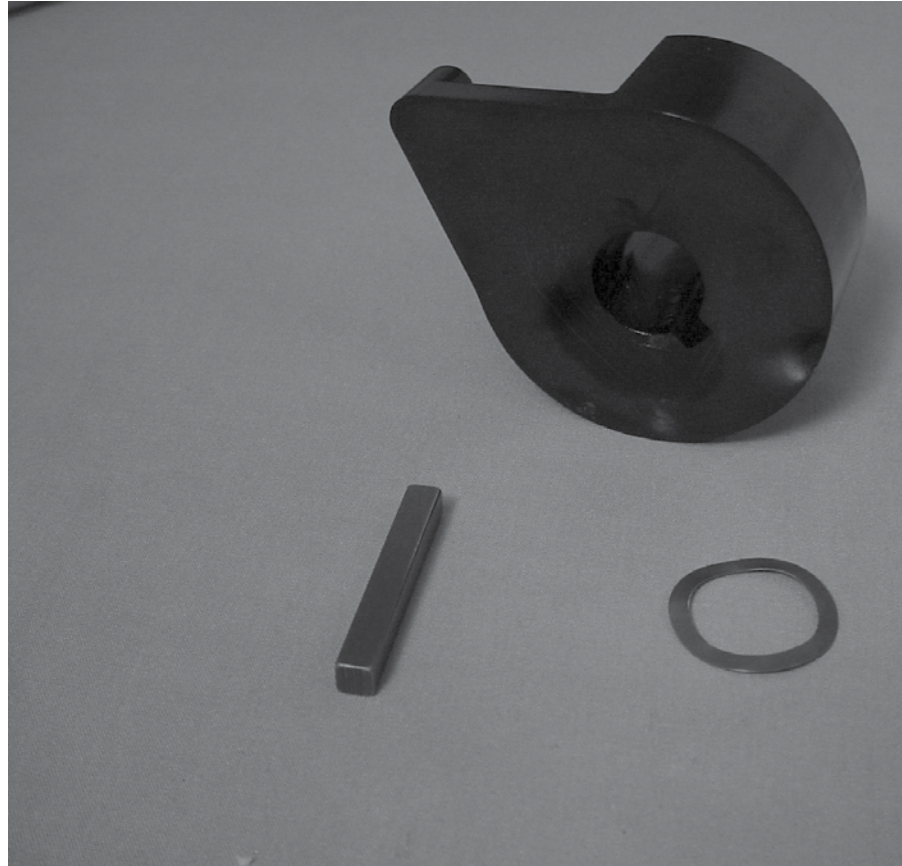


QD3 Quik-Drive Tap-Changer Position indicator Drive Cam Replacement Kit Number 5740783B21



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Contents

DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITY I

SAFETY FOR LIFE III

SAFETY INFORMATION III

 Safety instructions iii

PRODUCT INFORMATION 1

 Introduction 1

 Read this manual first 1

 Additional information 1

 Acceptance and initial inspection 1

 Handling and storage 1

 Standards 1

 Parts supplied 1

 Tools required 1

PROCEDURE 1

 PI drive cam removal 1

 PI cam installation 2



Safety for life



Eaton's Cooper Power series products meet or exceed all applicable industry standards relating to product safety. We actively promote safe practices in the use and maintenance of our products through our service literature, instructional training programs, and the continuous efforts of all Eaton employees involved in product design, manufacture, marketing and service.

We strongly urge that you always follow all locally approved safety procedures and safety instructions when working around high-voltage lines and equipment and support our "Safety For Life" mission.

Safety information

The instructions in this manual are not intended as a substitute for proper training or adequate experience in the safe operation of the equipment described. Only competent technicians, who are familiar with this equipment should install, operate and service it.

A competent technician has these qualifications:

- Is thoroughly familiar with these instructions.
- Is trained in industry-accepted high- and low-voltage safe operating practices and procedures.
- Is trained and authorized to energize, de-energize, clear, and ground power distribution equipment.
- Is trained in the care and use of protective equipment such as flash clothing, safety glasses, face shield, hard hat, rubber gloves, clampstick, hotstick, etc.

Following is important safety information. For safe installation and operation of this equipment, be sure to read and understand all cautions and warnings.

Hazard Statement Definitions

This manual may contain four types of hazard statements:

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in equipment damage only.

Safety instructions

Following are general caution and warning statements that apply to this equipment. Additional statements, related to specific tasks and procedures, are located throughout the manual.

DANGER

Hazardous voltage. Contact with high voltage will cause death or severe personal injury. Follow all locally approved safety procedures when working around high- and low-voltage lines and equipment.

WARNING

Before installing, operating, maintaining, or testing this equipment, carefully read and understand the contents of this manual. Improper operation, handling or maintenance can result in death, severe personal injury, and equipment damage.

WARNING

This equipment is not intended to protect human life. Follow all locally approved procedures and safety practices when installing or operating this equipment. Failure to comply may result in death, severe personal injury and equipment damage.

WARNING

Power distribution and transmission equipment must be properly selected for the intended application. It must be installed and serviced by competent personnel who have been trained and understand proper safety procedures. These instructions are written for such personnel and are not a substitute for adequate training and experience in safety procedures. Failure to properly select, install or maintain power distribution and transmission equipment can result in death, severe personal injury, and equipment damage.

Product information

Introduction

This document provides the installation instruction for a replacement position indicator (PI) drive cam for the QD3 Quik-Drive Tap Changer on an Eaton's Cooper Power series voltage regulator.

Read this manual first

Read and understand the contents of this manual and follow all locally approved procedures and safety practices before installing or operating this equipment.

Additional information

These instructions cannot cover all details or variations in the equipment, procedures, or processes described nor provide directions for meeting every possible contingency during installation, operation, or maintenance. For additional information, contact your Eaton's Cooper Power series product representative.

Acceptance and initial inspection

Each drive cam kit is in good condition when accepted by the carrier for shipment. Upon receipt, inspect the shipping container for signs of damage. Unpack the drive cam kit and inspect it thoroughly for damage incurred during shipment. If damaged is discovered, file a claim with the carrier immediately.

Handling and storage

Be careful during handling and storage of the drive cam kit to minimize the possibility of damage. If the drive cam kit is to be stored for any length of time prior to installation, provide a clean, dry storage area.

Standards

ISO 9001 Certified Quality Management System

Parts supplied

Item	Part number	Description	Qty
1	2240783B21	PI Drive Cam	1
2	2291652A06	Sprocket Key	1
3	0891663A09	Wave Washer	1

Tools required

Description	Qty
Phillips Screwdriver	1
243 Locktite®	1

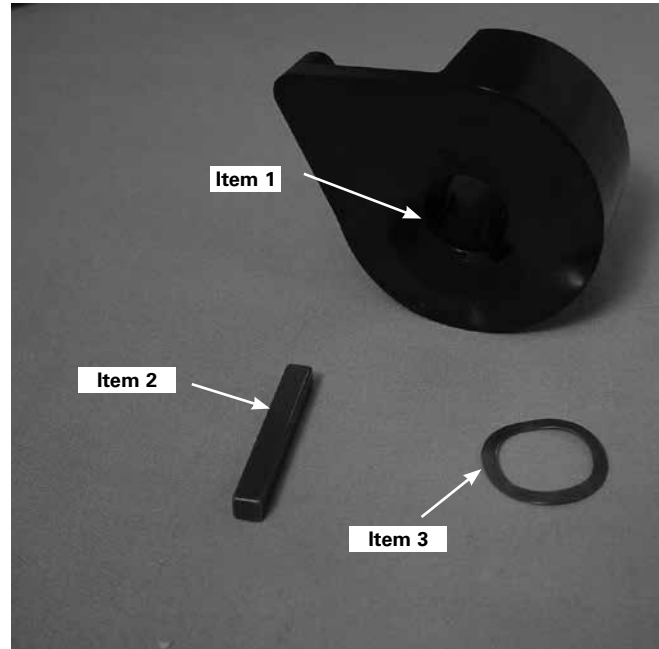


Figure 1. Kit parts

Procedure

PI drive cam removal

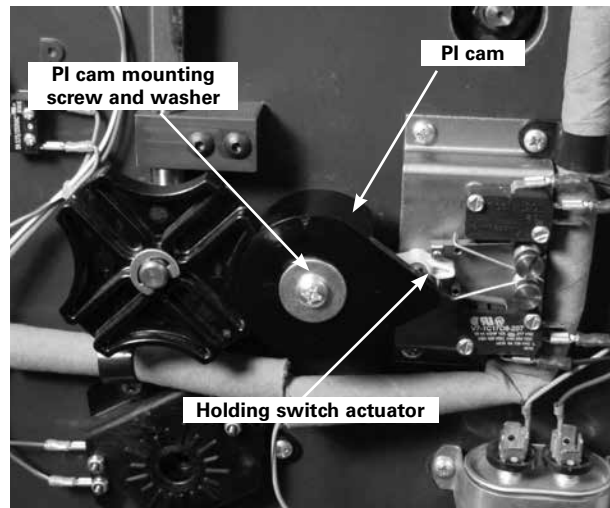


Figure 2. PI Cam and holding switch actuator

1. If possible rotate the PI drive cam so that the point of the cam is pointing toward the holding switch actuator, see Figure 2. The cam should rotate freely by hand.
2. Hold the cam to keep it from rotating and then use a Phillips screwdriver to remove the mounting screw. See Figure 2.

QD3 Quik-Drive Tap-Changer Position indicator Drive Cam Replacement Kit Number 5740783B21

3. Pull the cam from the tap-changer drive shaft. See Figure 3.

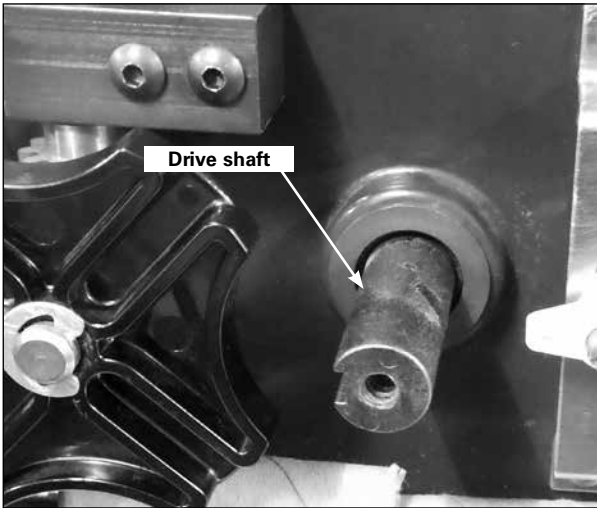


Figure 3. Tap changer drive shaft

5. Remove the wave washer located between the cam and the front surface of the tap changer. See Figure 5.

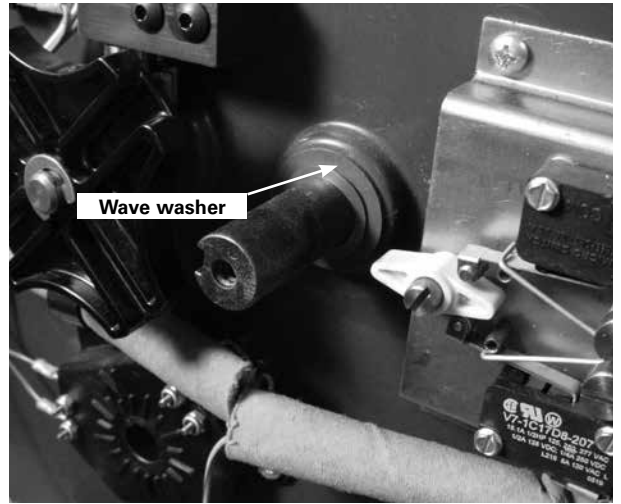


Figure 5. PI Cam wave washers

4. Remove the sprocket key from the drive-shaft slot. See Figure 4.

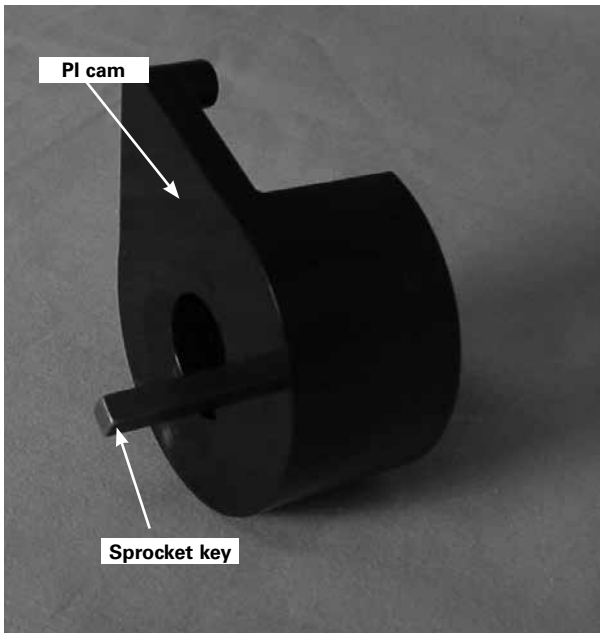


Figure 4. PI Cam and sprocket key

PI cam installation

6. Place the new wave washer over the shaft. See Figure 5.
7. Install the new cam over the drive shaft.
8. Rotate the cam until the sprocket key slots on the drive shaft and cam are aligned. Insert the sprocket key in the slot.

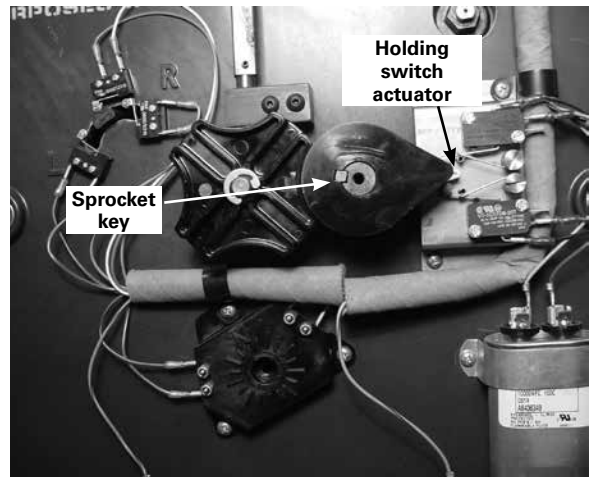


Figure 6. PI Cam assembly

QD3 Quik-Drive Tap-Changer Position indicator Drive Cam Replacement Kit Number 5740783B21

9. Rotate the PI Cam point so it is pointing at the actuator located on the holding switch. See Figure 6.
10. Place the washer over the PI Cam fastening screw.
11. Place a drop of 243 Loctite onto the screw threads of the fastening screw.
12. Place the screw into the tapped hole on the shaft. Hold the PI Drive Cam while tightening the screw to keep it from rotating.



Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Power Systems Division
2300 Badger Drive
Waukesha, WI 53188
United States
Eaton.com/cooperpowerseries

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